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AUTHOR Skalicky, Anne; Cook, John T.

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ABSTRACT

This report summarizes the association of welfare sanctions--benefits terminated or reduced for failure to comply with behavioral requirements--with the health and food security of children younger than 3 years of age in 6 large U.S. cities (Baltimore, Boston, Little Rock, Los Angeles, Minneapolis, and Washington, D.C.). Information for the report includes data collected through the Children's Sentinel Nutrition Assessment Program (C-SNAP). The C-SNAP involved a sentinel sample of caregivers of infants and toddlers presenting at pediatric emergency rooms and primary care services for non-life- threatening conditions. Eligible caregivers were interviewed regarding the child's and parent's health, household demographics, use of public assistance programs, and food security. The main findings are summarized as follows: (1) welfare sanctions and benefits decrease are associated with significantly increased rates of hospitalizations for young children, and these effects were not altered by receipt of food stamp or WIC benefits; (2) welfare sanctions are associated with significantly increased rates of food insecurity in households of young children; (3) in Boston and Minneapolis, infants and toddlers in 2001 had approximately a 40 percent higher risk of food insecurity compared to 1999, a 30 percent higher risk of being underweight, and a 50 percent higher risk of being hospitalized during an emergency room visit. The report's three appendices provide additional detail on the study's methodology, the food security questions, and a description of welfare sanction policies. (Contains 27 references.) (KB)

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The Impact of Welfare Sanctions on the Health of Infants and Toddlers

A REPORT FROM THE CHILDREN'S SENTINEL NUTRITION ASSESSMENT PROGRAM

July 2002

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Report Consultant:
John Kellogg, J.B. Kellogg & Associates

Report Design:
Jeanine Owens, Gliddon Owens Design

Prepared By:
Anne Skalicky, MPH, C-SNAP Program Coordinator
John T. Cook, Ph.D. Co-Investigator

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Executive Summary

This report summarizes the association of welfare sanctions with the health and food security of children less than 3 years of age in 6 large U.S. cities. The report is based on findings published in the July 2002 issue of the Archives of Pediatric and Adolescent Medicine, using data collected by the Children's Sentinel Nutrition Assessment Program (C-SNAP), as well as additional data presented at the Pediatric Academic Societies Annual Meeting in Baltimore, 2002. The main findings are summarized below.

1. Welfare sanctions and benefit decrease are associated with significantly increased rates of hospitalizations in young children.

- Infants and toddlers in families whose welfare benefits have been terminated or reduced by sanctions have approximately *30% higher risk of having past hospitalizations* than children in families whose benefits have not been decreased.
- Infants and toddlers in families whose welfare benefits have been terminated or reduced by sanctions ***have 90% higher risk of being hospitalized at the time of an emergency room visit*** than those in families' whose benefits have not been decreased.
- Infants or toddlers whose welfare benefits have been decreased have almost 3 times the risk of being admitted to the hospital at an ER visit.
- Receiving Food Stamp benefits or the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) does not protect infants or toddlers from the negative health impacts of welfare sanctions or a decrease in welfare benefit.

2. Welfare sanctions are associated with significantly increased rates of food insecurity in households of young children.

- *Families with infants and toddlers* whose welfare benefits have been terminated or reduced by sanctions have approximately *50% higher risk of being food insecure* than similar families whose benefits have not been decreased.

3. Time Trends in Health and Food Insecurity of Infants and Toddlers from 1999-2001.

In 2001, infants and toddlers of US-born families studied from Boston and Minneapolis have approximately:

- 40% higher risk of food insecurity compared to 1999.
- 30% higher risk of being underweight compared to 1999.
- 50% higher risk of being hospitalized during an ER visit compared to 1999.

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Report

I. Study Description

Figure 1: Map of C-SNAP Locations

C-SNAP Study Overview

The Children's Sentinel Nutrition Assessment Program (C-SNAP) conducted household-level surveys and medical record audits between August 1998 and December 2000 at central-city medical centers in Baltimore, Boston, Little Rock, Los Angeles, Minneapolis, and Washington, DC. *(Figure 1)*

C-SNAP researchers interviewed caregivers of children three years of age and younger presenting at pediatric emergency rooms (ER) and primary care services for non-life threatening conditions. Caregivers were approached to participate in the study if they were related to the child and had knowledge of the child's household, spoke either English or Spanish, and had not been previously interviewed.

The C-SNAP survey asked families about the health of the child being seen that day in the ER or clinic, the health of the parent being interviewed, questions about household demographics, use of public assistance programs, and the 18-question United States Department of Agriculture (USDA) food security module. The methodology, study sample and analysis are further described in Appendix A.

Analysis Objective

The objective of this analysis was to examine the association of welfare sanctions with the health and food security of children less than 3 years of age in 6 large U.S. cities. This analysis examines whether welfare sanctions are

Why Study a Sentinel Sample?

In the U.S., sentinel surveillance has been utilized in monitoring maternal and infant mortality, disease due to environmental and occupational exposures, and infectious diseases, including HIV/AIDS. Sentinel surveillance has its greatest usefulness in providing timely information on difficult-to-sample populations, such as infants and toddlers affected by welfare reform, who are too young for school enrollment and whose primary locus of contact with professionals may be in health care settings. Children less than three years of age presenting for medical care are a sentinel group for the effects of welfare reform on low-income children's health and can provide early warnings of harm to a wider population of children.

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associated with increased hospitalization and food insecurity in children under three years of age utilizing health care in six urban medical centers. Each of the C-SNAP study sites' states welfare sanction policies are distinct and are outlined in Figure 2. Specifically, researchers assessed whether sanctioning adults unintentionally harms the health and food security of their infants and toddlers. The analysis focused on the following questions:

1. Are welfare sanctions that are imposed on parents associated with the health of their infants and toddlers.?
2. Are welfare sanctions that are imposed on parents associated with their household's food security?
3. Were any preliminary trends detected in the health and food insecurity of infants and toddlers when the recession of 2001 intersected with welfare reform?

What is Food Security?

Food Security is defined by the USDA as, "the availability...and access to nutritionally adequate and safe foods in socially acceptable ways." Food security is an important indicator of the health and well-being of a household. Food insecurity is the direct result of constrained financial resources and is often accompanied by high levels of family stress. *(Appendix B)*

Why Study Children Under 3?

In 2001, children under 18 comprised from 65% to 80% of state welfare caseloads; the majority being children under 5 years of age. While other studies of welfare reform have assessed its effects on school-age children, none have examined its effects on the health of infants and toddlers.

During the first three years of life, young children are in an extremely vulnerable period of rapid growth of body and brain. Undernutrition, along with other environmental factors associated with poverty, can permanently impair physical growth, brain development, and cognitive function in children.

Figure 2

C-SNAP State Welfare Policies	Arkansas	California	District of Columbia	Maryland	Massachusetts	Minnesota
Family Cap	X	X				
Work-fare	X	X	X	X	X	X
Teen-fare	X	X		X	X	X
School-fare	X	X	X	X	X	
Shot-fare					X	
Partial Sanctions	X	X	X		X	X
Full-sanctions				X	X	
Time Limit	24 mo.	60 mo.	60 mo.	60 mo.	24 in 60 mo.	60 mo.
Lifetime Limit	X	X	X	X		X

Reference: State policy documentation project http://www.spdp.org/

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Description of Analysis

This analysis was conducted on 2,718 families who reported current receipt of welfare or sanction from welfare since 1996 *(Figure 3)*. These children were identified from the larger sample of 9,469 children whose caregivers completed interviews at the six C-SNAP study sites *(Figure 4)*.

In order to examine the impacts of welfare sanctions on the health and food security of young children, the analysis was restricted to households that were presently receiving welfare or who had been recently cut-off from benefits due to a sanction.

A. Study Groups

Families were categorized into three groups:

- Welfare Sanctioned: Benefits terminated (full-family sanction) or reduced (partial sanction) for failure to comply with behavioral requirements.
- Welfare Decreased: Benefits decreased administratively due to changes in income or expenses (e.g., from work or changes in marital status or living arrangements).
- Welfare Not Decreased: Benefits either increased or did not change. *(Figure 5)*

This analysis focuses on comparing the Welfare Sanctioned and Welfare Decreased groups to the Welfare Not Decreased group.

Figure 5 shows proportions of study children in each of these three groups as reported by parents. Of the 620 caregivers whose welfare was sanctioned, 129 (21%) also had Food Stamp benefits reduced or terminated by sanctions. Of the 264 caregivers whose welfare was decreased due to changes in earnings or expenses, 72 (27%) also had Food Stamps decreased.

Figure 3: Geographic Distribution of Welfare Analysis Sample

C-SNAP Welfare Centers	% Sample (N=2,718)
Baltimore, MD	12
Boston, MA	25
Little Rock, AR	4
Los Angeles, CA	12
Minneapolis, MN	45
Washington, DC	1

Figure 5: Reported Welfare Status of Families

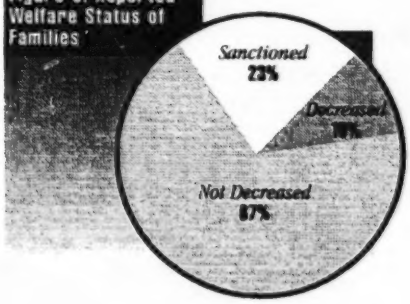

Figure 4	Sample Size	% of Total
Total number of caretakers approached	12,348	
Number of families interviewed	9,469	77%
Number of families in welfare analysis sample	2,718	29%

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B. Health Outcome Measures

Three health outcomes were selected for their functional importance and ease of brief assessment in large samples:

- Past hospitalizations.
- Child admitted to the hospital on the day of interview (ER study sites only).
- Household food insecurity.

For all children in the study, data were obtained from the caregiver on how many times prior to the day of the interview the child had previously been hospitalized. When caregivers were interviewed during ER visits, data were available from medical records indicating whether the child was admitted to the hospital from the ER on the day of the interview.

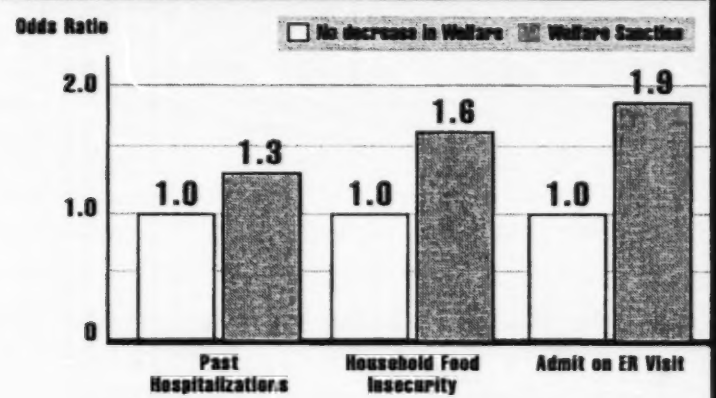
Admission to the hospital on the day of an ER visit, was possible for 42% of the children in this analysis sample presenting to the following study centers:

- Boston (n = 683; 25%).
- Little Rock (n = 119; 4%).
- Los Angeles (n = 330; 12%).

C. Statistical Methods

For this analysis, multiple logistic regression was used to compare the risk of hospitalization or food insecurity across the three welfare groups, controlling for characteristics that might influence these outcomes. Results are reported using Adjusted Odds Ratios (AOR), Confidence Intervals (CI) and Adjusted Percentages *(Appendix B)*.

Figure 6: Welfare Sanctions & Well Being of Infants & Toddlers



What Does this Graph Show?

Infants and toddlers in sanctioned families have:

- 30% greater risk of having been previously hospitalized
- 60% greater risk of food insecurity
- 90% greater risk of being admitted to the hospital at an ER visit

Odds Ratios adjusted for study site, caregiver's age, marital status, education, race/ethnicity, caregiver US born, child LBW, housing subsidy, child in daycare, child's age, child's health insurance, household on SSI, Food Stamps and WIC. All differences are significant at the P<.05 level.

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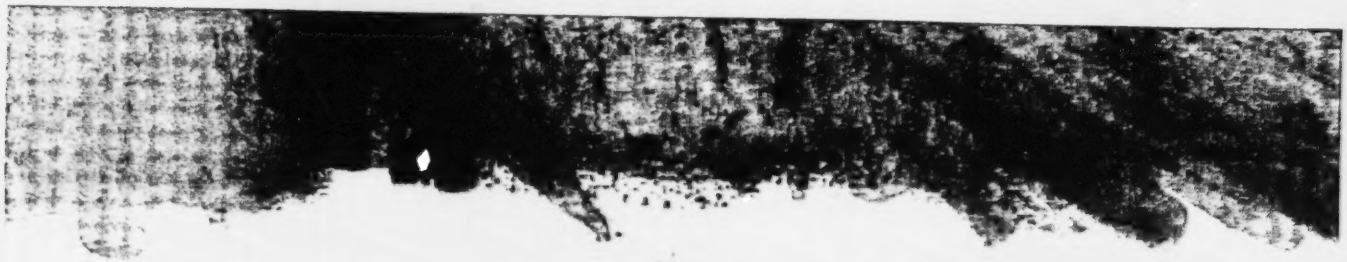

Findings

1. Health and Welfare Sanctions

A. Past Hospitalizations

Infants and toddlers in families that experienced termination or reduction in welfare benefits because of welfare sanctions had 30% greater risk of past hospitalizations (AOR = 1.3, 95% CI [1.0-1.8], P value = 0.04, Adjusted Percent 27% versus 22%) compared to those whose benefits were not decreased. *(Figure 6)*

B. Admission to Hospital at ER Visit

Infants and toddlers whose families had experienced a welfare sanction had 90% greater risk of being admitted to the hospital on the day of an ER visit as those in families whose benefits were not decreased (AOR = 1.9, 95% CI [1.2- 3.0], P = 0.006, Adjusted Percent 11% versus 6%).

Infants and toddlers in families whose welfare benefits were decreased due to changes in income or expenses (not due to sanctions) did not have greater risk of past hospitalizations. However, these children had almost three times the risk of being admitted to the hospital at the time of an ER visit (AOR=2.8, [1.4-5.6], P = 0.005, Adjusted Percent 15% versus 6%) than those whose benefits were not decreased for any reason.

2. Household Food Security and Welfare Sanctions

After statistically controlling for other factors, welfare recipient households with infants and toddlers whose benefits were terminated or reduced by welfare sanctions had 50% greater risk of being food insecure (AOR = 1.5, 95% CI [1.1- 2.0], P value = 0.006, Adjusted Percent 23% versus 17%) than comparable households whose benefits were not decreased.

Households with young children whose welfare benefits were decreased because of increased

Infants and toddlers in welfare sanctioned families had **90% greater risk** of being admitted to the hospital as those in families whose benefits have not decreased.

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earnings or decreased expenses had 46% greater risk of being food insecure (AOR = 1.5, 95% CI [1.1-2.2], P value = 0.02, Adjusted Percent 23% versus 17%) compared to those in families whose benefits were not decreased.

Though not an entitlement program, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is viewed as offering some protection for recipient families whose welfare or Food Stamp Program benefits have been terminated or reduced. However, results from models including current WIC participation as a control variable were not different from those reported above, indicating that WIC does not protect against loss of benefits due to sanctions.

3. Time Trends in Health and Food Insecurity of Infants and Toddlers from 1999-2001

In two of the six study sites (Boston, MA, and Minneapolis, MN), time trends in young children's health and food security were examined between 1999 through 2001. These two cites have similar climates, low unemployment, and relatively generous safety net programs for children.

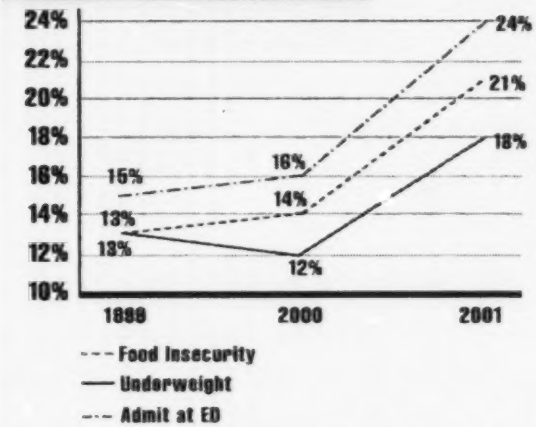
Unlike the sample described in the sanction analysis, this analysis was not restricted to recent welfare participants, but comprised all children under 3 of parents born in the United States to remove ambiguity about welfare eligibility due to immigration status. This analysis included 2,954 subjects.

This sub-sample did not differ from 1999 to 2001 with respect to caregivers' marital status or education, or in children's age, gestational age, or history of low birth-weight. There were, however, significant increases in children with private insurance, fewer mothers <21 years of age, a higher percent of caregivers of Latino ethnicity, and the larger proportion of interviews conducted at the Boston study site in 2001.

Examining assistance program participation over these three years, time-trends show that WIC participation remained relatively stable, while Food Stamp and welfare participation decreased. At the same time, unemployment and welfare sanctions increased significantly. Household food insecurity also increased, as did the percent of underweight children (weight-for-age <5th percentile, weight-for-length <10th percentile). Among the 1,731 Boston subjects, rates of hospital admission also increased *(Figure 7)*.

Logistic regression models controlling for site, race/ethnicity, private health insurance, and mother's age <21 years found significantly increased risk between 1999 and 2001 for food insecurity (AOR = 1.4, 95% CI [1.1- 1.8], P = 0.01, Adjusted Percent 13% vs 21%), underweight (AOR = 1.3, 95% CI [1.0- 1.7], P = 0.09, Adjusted Percent 13% vs 18%) and in the Boston ER data, hospital admission at ER visit (AOR = 1.5, 95% CI [1.0- 2.2], P = 0.05, Adjusted Percent 15% vs 24%).

Figure 7: Time Trends in Health & Food Insecurity from 1999-2001



Percentages adjusted for site, race/ethnicity, private health insurance, and mother's age < 21.

II. Discussion of Findings

Policy Implications

This study provides the first empirical clinical evidence of associations between provisions of the 1996 welfare reform and increased hospitalization and food insecurity among infants and toddlers in recipient families.

These findings emerged even though 93% of the children had health insurance (mostly publicly funded) and 80% received WIC. Moreover, significant adverse health effects for infants and toddlers were still seen even after controlling for receiving Food Stamp benefits or having an employed adult in the household.

Parents with sick children may have difficulty finding work that allows them to take time off when their child is sick or needs medical attention. Many such families may not meet the formal requirements for SSI benefits and may be more likely to utilize welfare. Since parents' ability to comply with requirements to participate in work activities may nevertheless be impeded by the poor health of their children these families may disproportionately be experiencing welfare sanctions.

Children who are hospitalized during an emergency room visit may be experiencing an acute sickness, injury, or exacerbation of a chronic illness. In this report, welfare sanctions or administrative decreases in benefits temporally precede the illnesses or injuries precipitating ER visits. This temporal relationship lends credibility to the likelihood of sanctions being implicated in the causal chain of exacerbation of chronic health conditions or onset of acute and serious health problems in young children.

It is not possible to determine the exact relationship between welfare reform and children's health from a cross-sectional study such as this. However, these findings indicate that children in families whose welfare benefits are terminated or reduced by sanctions have greater risk of hospitalization and food insecurity compared to those whose benefits have not been decreased.

Hospitalization of a child indicates a trained health professional's judgment that a health condition must be regarded as imposing serious—even life-threatening—consequences for the child's well-being. It is possible that a physician's decision to hospitalize a young child may be influenced by the perceived inability of the parent to care for a sick child at home. As such, termination or reduction in welfare benefits because of sanctions could be markers of a family's dysfunction—or exacerbate it. However, these data indicate that the greater likelihood of hospitalization associated with decreased welfare benefits is not simply the result of higher levels of caregiver dysfunction. Children of families who are able to comply with welfare regulations and receive some increased alternate income (and thus receive decreased benefits) are presumably less dysfunctional (or at least no more dysfunctional) than the reference category whose welfare benefits was not decreased. However, like children of sanctioned families, they are also significantly more likely to require urgent hospitalization than children not experiencing decreased welfare benefits.

III. Conclusion

The findings of this study indicate that unintended consequences of welfare reform may jeopardize the health of an increasing number of America's children as the current economic downturn, welfare sanctions, and welfare time limits simultaneously decrease families' resources.

In 1996, legislation was enacted to overhaul the nation's welfare system. The new law limited eligibility of families with young children for income support, and permitted considerable discretion to state and local governments to decrease or completely withdraw support by sanctioning families for failure to comply with various regulations. Nearly all families, regardless of their effort to comply with program regulations, are subject to a five-year welfare time limit (many states have shorter time limits) unless they qualify for an exemption.

Such sanctions and time limits may have been imposed without adequate consideration of their likely impacts on affected young children. This report indicates that sanctioning welfare recipients jeopardizes the health and food security of infants and toddlers at the most critical period in their growth and development.

Food insecurity has been shown to jeopardize the health of children. Malnutrition weakens the immune system, predisposing children to recurrent infections. In the long run, food insecurity impairs children's ability to learn

Time Trend Discussion:

Time trend data from this study provide ecological indications suggesting that food insecurity and health problems among children under 3 in low-income families, even in the most privileged cities, are increasing at a time when participation in safety net programs is decreasing. Of great concern is the rise in proportion of underweight children in these data, and the increasing need for acute hospitalizations. If these disturbing trends are occurring in Minneapolis and Boston, even more troubling questions are raised about the well-being of similar children in states with less generous safety nets and worse economic conditions. These questions urgently need to be answered before policymakers consider increasing welfare work requirements.

Suggestions for Future Research

From a scientific research perspective, *if this study is viewed as a test of the null hypothesis that sanctions imposed by welfare reform have no harmful effects on the health of infants and toddlers in recipient families, then that hypothesis can be soundly rejected.* Only through further rigorous research can the precise nature of these relationships be clarified. More information is urgently needed on the impacts of welfare sanctions and benefit reductions on child health in a nationally representative sample of children ages birth to age 36 months.

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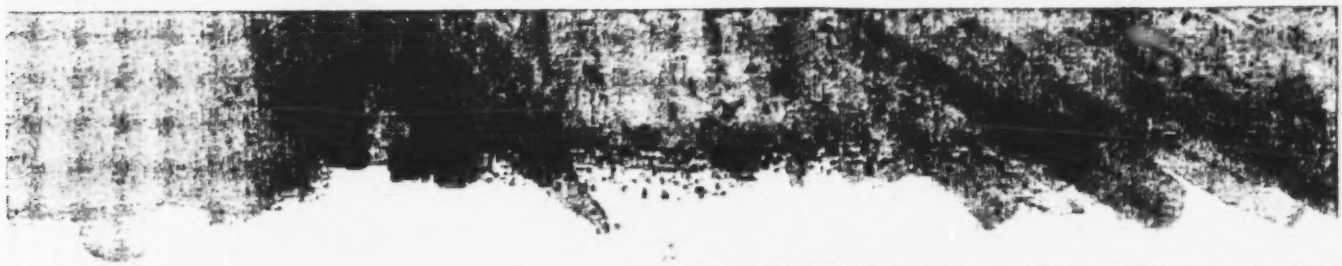

because their rapidly growing brains do not receive the essential nutrients they need at a time when the capacity to make new brain exists.

Illness and poverty can interact in a vicious cycle that endangers the health of children. Low-income families face difficulties paying rent, buying food, providing a safe environment for their children, obtaining adequate health insurance or access to health services, and paying for transportation. Oftentimes, the most effective treatment to improve children's health problems is to refer families for income support and other services that can enable them to meet their child's basic needs.

Concluding that welfare reform is succeeding on the basis of unprecedented caseload declines, even when accompanied by increased employment and earnings among some recipients and ex-recipients, without adequate consideration of health consequences for young children constitutes a misjudgment. The results of this research indicate that some of the extensive changes implemented under welfare reform are associated with unforeseen and unintended health consequences for young children. *Proposed welfare reform reauthorization policies that recommend more stringent work requirements, thus exposing more families to sanctions, warrant careful reconsideration in order to protect the health of the majority of those affected by welfare reform – young children.*

Illness and poverty can interact in a **vicious cycle that endangers the health** of children.

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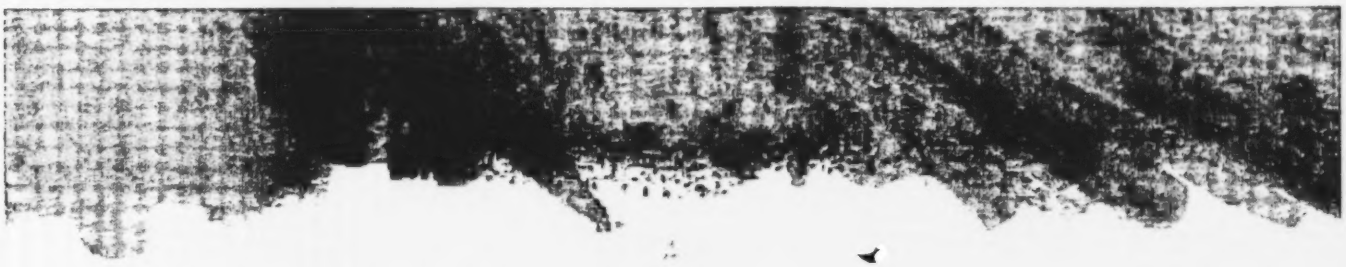

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Appendix A

C-SNAP Study Methodology

The Children's Sentinel Nutrition Assessment Program (C-SNAP) conducted household-level surveys and medical record audits between August 1998 and December 2000 at central-city medical centers in Baltimore, Boston, Little Rock, Los Angeles, Minneapolis, and Washington, DC. The C-SNAP research project is a repeated cohort study that utilizes cross-sectional survey administration to a convenience sample of eligible subjects.

Medical Centers that participated in this study are:

- Boston Medical Center, Boston, MA.
- Hennepin County Medical Center, Minneapolis, MN.
- Harbor-UCLA Medical Center, Torrance, CA.
- Mary's Center for Maternal and Child Care, Washington, DC.
- University of Arkansas for Medical Sciences, Little Rock, AR.
- University of Maryland School of Medicine, Baltimore, MD.

Each child's household-level food security status was determined by utilizing the USDA 18-item food security module. The United States Department of Agriculture (USDA) food security scale provides a standard measure of a household's situation in the 12 months before the interview. This 18-question measure assigns a food security score to surveyed households that then allows determination of the household's food security status. The questions focus on whether the household has enough food or money to meet its basic food needs. Household food security status was assessed and categorized as: (1) food secure; or (2) food insecure. *(See Appendix B)*

C-SNAP medical centers and clinics are located in central cities and predominantly serve low-income ethnically diverse urban populations. Caregivers were approached and interviewed in a confidential setting during peak patient flow hours. Of the 12,348 caregivers approached in the six study sites, about 7% refused to participate and another 16% were ineligible due to language spoken, not having sufficient knowledge about the child's household, having been previously interviewed or being unable to complete the survey. The total C-SNAP sample during this time frame was 9,469 of which 2,718 were present welfare recipients or had left due to a sanction.

Demographics of C-SNAP Study Sample

Caretakers Interviewed

The typical caregiver in this study was African American (69%) or Hispanic (23%.). A majority of the caregivers were born in the United States (77%), had a high school education (56%), were over 21 years of age (72%) and were single (67%). Most caregivers were not employed (72%) and were currently receiving Food Stamps (81%).

Children of Interviewed Caregivers

A majority of caregivers surveyed were seeking medical care for a child under 1 year of age (58%). Most of the children had normal weights at birth (86%, >2500grams), were insured by Medicaid (92%) or other public insurance program, and were receiving WIC (85%). One-third of the children were cared for in out-of-home childcare.

Description Data Analysis

For this study, multiple logistic regression was used to compare the risk of hospitalization or food insecurity across the three welfare groups, controlling for other characteristics that might influence these outcomes. Results are reported using Adjusted Odds Ratios (AOR) Confidence Intervals (CI) and Adjusted Percentages *(see box)*.

Control Characteristics

Welfare families who have been sanctioned may differ from welfare families who have not been sanctioned on a number of demographic factors that might impact the health outcomes of interest. To ensure that other variables do not account for differences between the welfare groups on child health outcomes, researchers included the following variables in all analyses as controls:

- Study site.
- Race/ethnicity of the child.
- Whether a child's mother is U.S.-born (99.2% of all children were U.S. born).
- Whether the child was low birth-weight (LBW<2500 grams).
- Whether the household receives a housing subsidy.
- Whether the child attends childcare.
- Child's age.
- Whether the child is covered by any health insurance.
- Whether the child or adult caregiver receives Supplemental Security Income (SSI) benefits.
- Whether caregiver receives WIC.
- Whether caregiver receives Food Stamps.
- Age of caregiver.
- Caregiver employed.
- Caregiver's marital status.
- Caregiver's education.

What are Adjusted Odds Ratio (AOR): An odds ratio describes the odds of an outcome for subjects with two different profiles (for example, comparing the odds of food insecurity for a child from a sanctioned family versus a family that was not sanctioned). For outcomes with low prevalence, the odds ratio approximates the increased risk of an outcome for subjects in one group relative to another. An odds ratio of 1.0 indicates no difference in odds of an outcome between the exposure group and the reference group. An odds ratio greater than 1.0 indicates increased odds of an outcome (for example, an odds ratio of 1.45 indicates a 45% increase in the odds of food insecurity for a sanctioned versus non-sanctioned family). An odds ratio less than 1.0 indicates decreased odds of outcome. Adjusted odds ratios (AOR) from a multiple logistic regression control for other characteristics included in the analysis, eliminating possible influences of these characteristics in causing the observed effects. Results can also be presented as adjusted percentages.

Confidence intervals (CI): Confidence intervals provide a specified margin of error indicating how precisely the odds ratio can be estimated. For example, a 95% confidence interval indicates a range of values above and below an estimate that have a probability of being exceeded of only 0.05, or 5%. So the actual value of the thing being estimated will be within this interval 95% of the time if you estimate it many, many times.

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Food insecurity **impairs children's ability to learn** because their rapidly growing brains do not receive the **essential nutrients they need** at a time when the capacity to make new brain exists.

C-SNAP Study Limitations

This research focused on a sample of children from a sentinel population utilizing medical services in central-city medical centers. The findings presented in this report cannot be generalized to all low-income children, since this is a sentinel rather than a nationally representative sample.

These results indicate that termination or reductions in welfare benefits due to sanctions are associated with significantly greater likelihood of young children seen in urban medical centers being hospitalized since birth, requiring urgent hospitalization, and being food insecure. However, we are unable to determine conclusively whether exposure to welfare sanctions and benefit reductions are responsible for increased prevalence of past hospitalizations, admissions to the hospital, or household food insecurity. Although we controlled for a wide range of family characteristics, other factors not controlled for may also have influenced the outcomes measured here. Moreover, causal relationships can not be determined in cross-sectional studies.

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Appendix B

USDA Food Security Core Module

Reference: Measuring Food Security in the United States, Guide to Measuring Household Food Security, Sept. 1997.

1. Which of these statements best describes the food eaten in your household in the last 12 months, that is, since (current month) of last year. We always have enough to eat and the kinds of food we want; We have enough to eat but NOT always the kinds of food we want; Sometimes we don't have enough to eat; or Often we don't have enough to eat.

1a. Here are some reasons why people don't always have enough to eat. For each one, please tell me if that is a reason why you don't always have enough to eat.
   a. Not enough money for food
   b. Too hard to get to the store
   c. On a diet
   d. No working stove available
   e. Not able to cook or eat because of health problems

1b. Here are some reasons why people don't always have the kinds of food they want or need. For each one, please tell me if that is a reason why you don't always have the kinds of food you want or need.
   a. Not enough money for food
   b. Too hard to get to the store
   c. On a diet
   d. Kinds of food we want not available
   e. Good quality food not available

Now I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was OFTEN true, SOMETIMES true, or NEVER true for your household in the last 12 months, that is since last (current month).

2. We worried whether our food would run out before we got money to buy more
3. The food that we bought just didn't last and we didn't have money to get more
4. We couldn't afford to eat balanced meals
5. We relied on only a few kinds of low-cost food to feed [my/our child/children] because we were running out of money to buy food.
6. We couldn't feed [my/our child/children] a balanced meal because we couldn't afford that.

Screener for Stage 2: If response 3 or 4 to Question 1 has been chosen, OR if "often true" or "sometimes true" is the response to any one of Questions 2-6, Then continue to Question 7: Otherwise skip to Section 6.

7. [My/Our child was/Children were] not eating enough because we just couldn't afford enough food.
8. In the last 12 months, since last (current month), did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?

8a. How often did this happen – Almost every month, some months but not every month, or in only 1 or 2 months?

9. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?
10. In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?
11. In the last 12 months, did you lose weight because you didn't have enough money for food?
12. In the last 12 months, did (you/you/or other adult in your household) ever not eat for a whole day because there wasn't enough money for food?

12a. How often did this happen – Almost every month, some months but not every month, or in only 1 or 2 months?

Screener for Stage 3: If "yes", or "almost/some months", "often" or "sometimes true" is chosen as a response to any one of Questions 7-12a, Then continue to Q13; Otherwise, skip to Section 6.

The next questions are about children living in the household who are under 18 years old.

13. In the last 12 months, since (current month) of last year, did you ever cut the size of (your child's/any of the children's) meals because there wasn't enough money for food?
14. In the last 12 months, did ([the child]/any of the children) ever skip meals because there wasn't enough money for food?

14a. How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?

15. In the last 12 months, (was your child/were the children) ever hungry but you just couldn't afford more food?
16. In the last 12 months, did (your child/any of the children) ever not eat for a whole day because there wasn't enough money for food?

Appendix C

Welfare Sanction Policies

Reference: State Policy Documentation Project http://sdpd.org/tanf/

Family Cap or "child exclusion" refers to restricted welfare benefits to children born to welfare recipients. If an additional child is born after the family begins to receive welfare, the cash grant does not increase for the family. Among states the timing of the childbearing is significant to whether the family will be "capped."

Work-Fare term used to describe employment related activity (including job search, education, training) required of a recipient by the state.

Exemption from Work Requirements:

- If child is less than a certain age (anywhere from 3months to 2 years), caretaker has illness or care's for incapacitated relation, domestic violence victim, pregnant (varies from 1 month to 9 months), over 60 years old, child care is unavailable (varies by state).

Teen-Fare mandates that states deny federal assistance to minor parents unless they fulfill all living arrangement and school/training requirements. Typically, a minor parent must be living in an adult-supervised setting approved of by the state, unless they are determined to be exempt. Also, in many states minor parents are required to complete high school or a GED in order to receive federal welfare benefits.

Exemption from School Attendance Requirements:

- If minor parent is caring for child under a certain age (varies by state), caring for disabled child, or transportation or childcare not available.

School-Fare refers to child school attendance requirements usually through grade 12.

Shot-Fare refers to immunization requirements for children listed on recipients benefit.

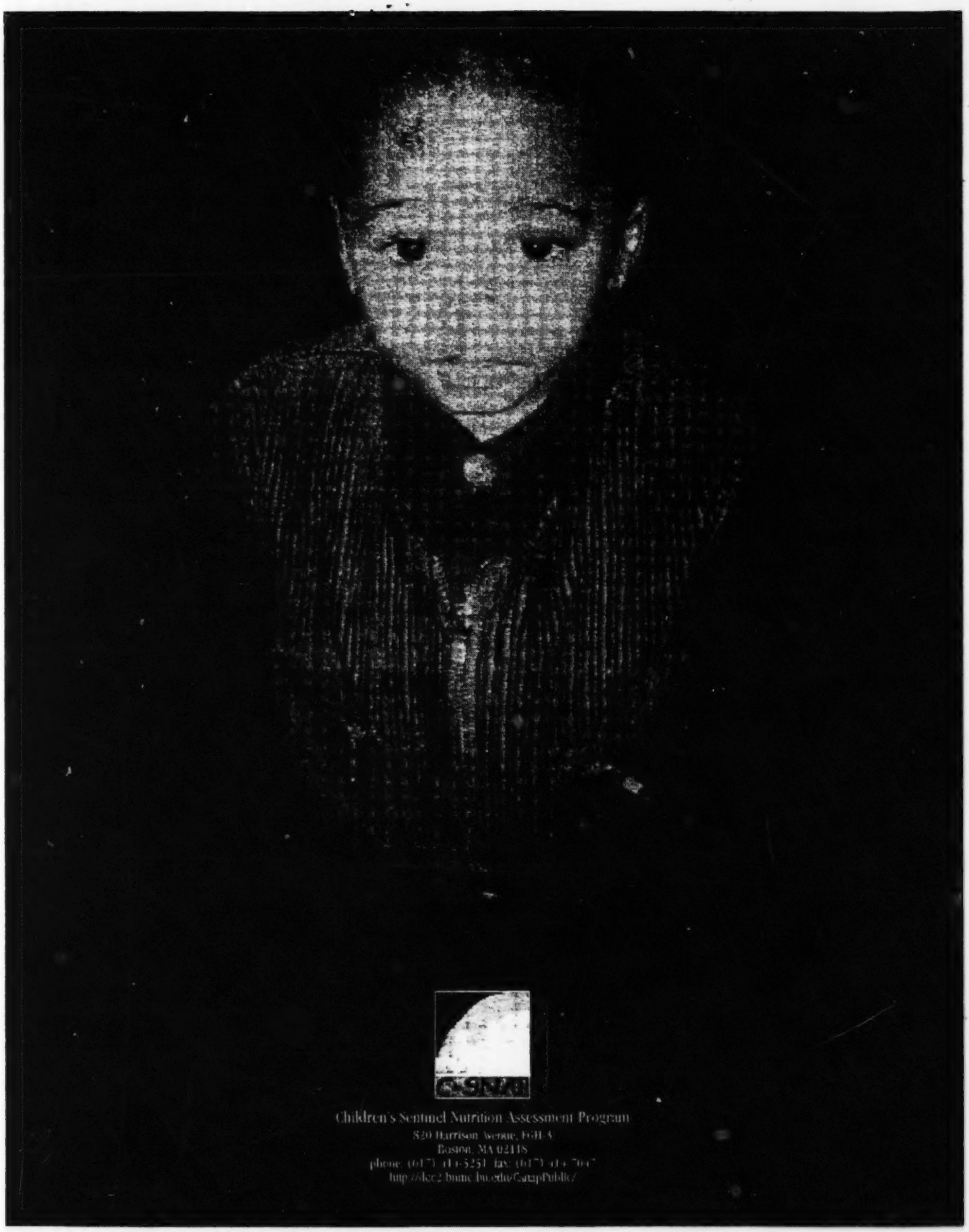
Partial Sanctions result in a grant reduction by a percentage of the total grant (usually 25%-50%) or a specified amount ($50-$100). The amount of the reduction generally increases over time or with further instance of noncompliance.

Full-Sanctions terminates cash assistance to the entire family usually lasting from one to six months. In order to lift a sanction most states require recipients to take actions to comply with the sanction.

Time Limits terminate or reduce assistance for a fixed period of time after which regular assistance can again be provided. For example, some states provide that a family may not receive assistance for more than 24 months in a 60-month period, and that after receiving benefits for a period of 24 months, the family will be ineligible for the next 36 months.

Lifetime Limit terminate or reduce assistance permanently. The Federal lifetime benefit limit is 60 months. Some states (California and Maryland included) impose a time limit only on the adult in the family and continue benefits to the children in a reduced amount when the time limit is reached.

Exemptions are circumstances (caring for a young child, pregnancy, victims of domestic violence, if childcare is unavailable, etc) which permit the family to continue to receive benefits for a specified number of months or excuse the recipient from participation in an activity.



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